The user manual of LED display screen and RH-512U control card.

Ⅰ Hardware parameters

1、The maximum number of points

P10 solid color：512*4000　256*8000（32 pieces high and 125 pieces wide; 16 pieces high and 250 pieces wide）

P10 bicolor：256*8000　（16 pieces high and 250 pieces wide）

P16 bicolor：256*8000　（16 pieces high and 250 pieces wide）

F3.75　F5 solid color：256*8000　512*4000　（8 pieces high and 125 pieces wide; 16 pieces high and 62 pieces wide）

F3.75　F5 bicolor：256*8000　512*4000　（8 pieces high and 125 pieces wide; 16 pieces high and 62 pieces wide）

2、Adaptive scope

Single primary color/ double primary colors LED display screens with various scanning specifications of 1/16, 1/8 and 1/4

3、Number of programs

256 programs are available, and each one could be set up with 8 free partitions.

4、Communication mode

usb　Serial ports Communication（RS-232）　GPRS

5、Communication distance

A USB extension cable should be no more than 8m (the cable of good shield quality can amount to 15m)

The baud rate is 115200: the length of serial wire can't be over 15m

The Baud Rate is 9600: the length of the serial line should be no more than 50 meters.

6、Supply voltage

Voltage range supported: 4.0V-5.5V (communication voltage best kept at about　5V)

Ⅱ Status of indicator light

D5: The power supply lamp, always on with electricity (the light of the control card)

Ⅲ Product advantages

1、Brightness is adjustable, with complementary length and width

2、Display Mode: 30 display effects + 28 special display effects

3、Supporting two-way communication, orderly play, fixed time play and fixed length play

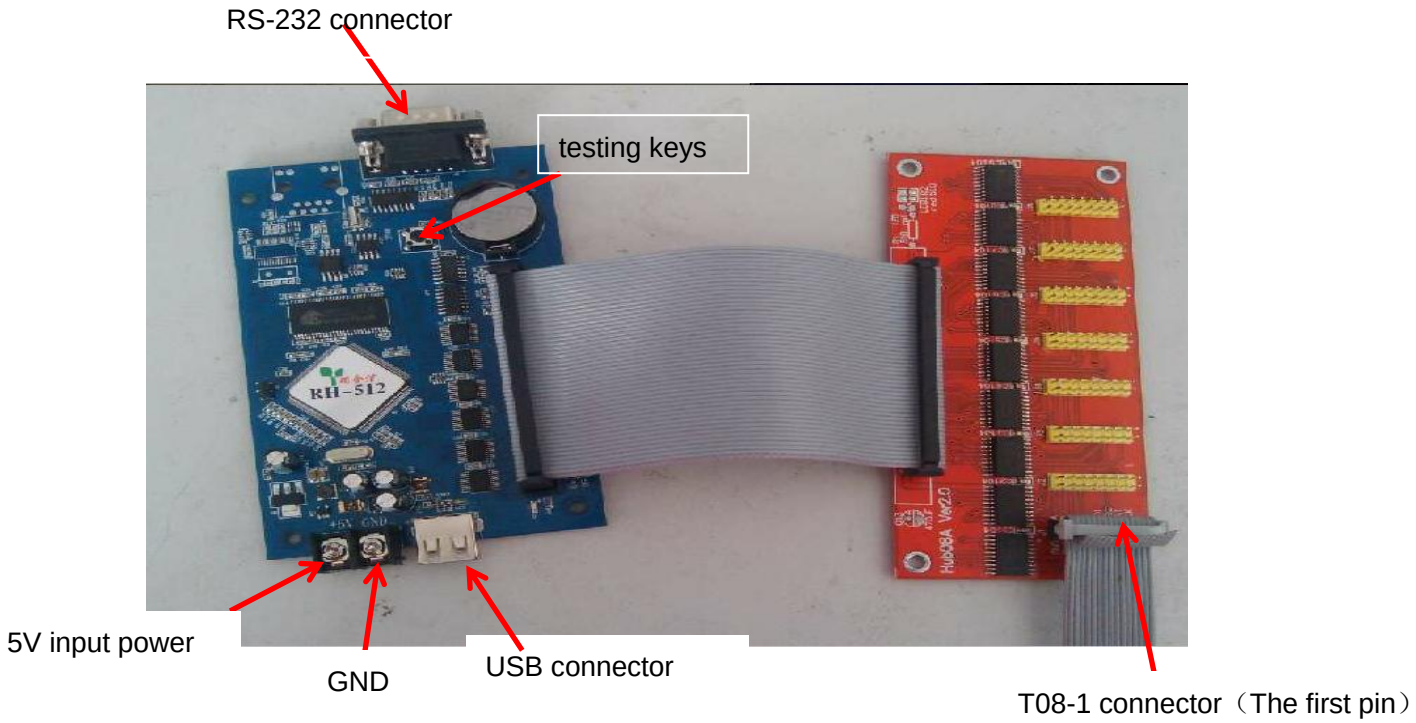
4、In order to improve the reliability and feasibility of products, we adopted two-chip proposal instead of the mainstream single chip proposal, thus the reliability and recognition rate of USB communication has been greatly improved.　The recognition rate of USB is up to 99%, and the repair rate of the whole series of products is less than 0.3‰

5、Cost-effective, go smoothly, steady operation

6、Achieve wireless transmission through matching connection with GPRS, WIFI module

Ⅳ Connection of the control card and display screen

First: Schematic diagram of control card connector



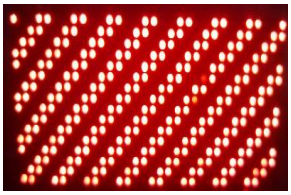
Second: Connection of the control card and display screen hardware

First, you can connect the end and power supply of the power module to the end and power supply of the control card, according to scanning mode of the display screen, If it is 1/4 scanning connect T12 connector and 1/16 (or 1/8) scanning connect T08 connector. The first pin between the display screen and control card should correspond to each other when connecting winding displacement.

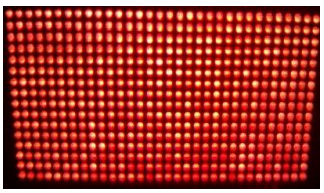
After connection, please examine lines connection; if it is OK, you can turn electricity on. After power-on, the upper right corner of display screen will first show the version of the control card, then show the default relevant program information.

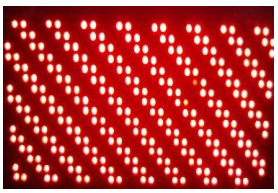
In case of abnormal display or inspection to be made on indicators of unit board, press the test button on the control card, to commission the display screen, and by pressing the test button, the display screen will switch to a new scanning state.

Test states such as left-hand diagonal, black screen, full bright, right-hand diagonal appear successively


left-hand diagonal

black screen


full bright


right-hand diagonal

Ⅴ USB flash disk communication

USB communication standard:

a. The USB extension cord cannot be over 8 meters (one with the good shield quality can reach to 15

meters)

b. Software version must be higher than version 3.1.555, including 3.1.555(It is better to use the most recent version of software, recommending version 3.1.686 or higher)

c. The capacity of USB flash disk must be over 1G, and the file system of the USB must be FAT32.

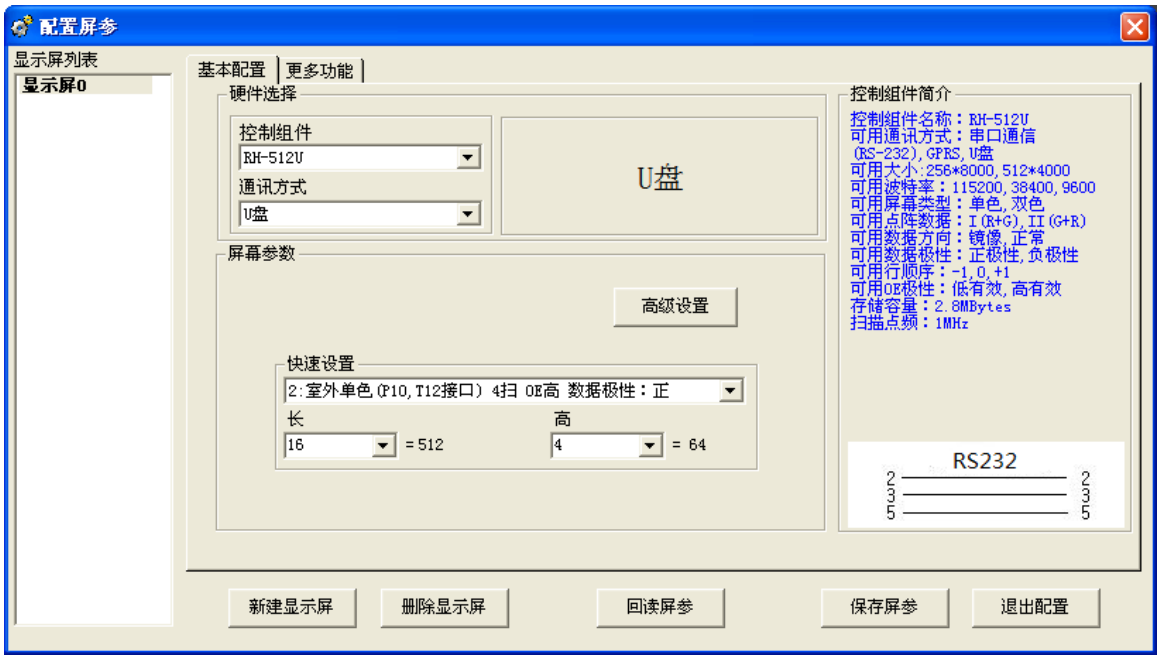
USB flash disk communication setting steps

Step one: screen setting

If you choose the RH-512U USB communication, there is no need to use a data line to connect the control card and the computer. Open the software directly, click "Setting" to set the screen parameters, and input the password (168 or) 888. Enter the parameter interface of setting screen, select RH-512U for the control unit and USB flash disk for the communication mode.

Then based on the specification of current display screen to perform "quick setting", click "advanced setting" for detailed setting of OE polarity and length-height of the screen, and if data polarity and row order need adjusting in the "advanced setting" option, click "more functions" to modify.

As the chart shows: the following chart is the interface of quick settings



After adjusting the display screen parameters, click "Save screen parameters" to complete setting the screen parameters of the control card.

Step two: Edit programs

First add the programs, and then add the corresponding subtitles, text, or time information etc. to edit the relevant program contents. (Please refer to the instruction of the software for specific operations.)

Step three: save the program to U disk

After the completion of program edition, press the "Send" button appeared on the right top corner of control software. The following dialog will appear. Select "U disk" and click "Save".

If you want to adjust time or adjust brightness, to set the timer switch etc. , you need to click the configuration button next to the send button. After finishing the amended contents, click "Save to U disk".

Step 4: the USB data can be read by the control card.

After saving the file, plug the USB into USB interface of control card. The screen will show sending message, when the screen shows please unplug USB, then do it. The control card will be restarted, display version information and program.

Caution: After reading the U disk data, if the font on the viewing screen is abnormal or gibberish, please refer to the above steps to reset the screen parameter, etc.

If the U disk can't be read or the screen doesn't response after reading, please format the U disk and try again or change another U disk.

Ⅵ Serial ports Communication

The standard of serial communication:

a、 the software version must be 3.1.555 or above (a version above 3.1.686 is recommended)

b、 The baud rate is 115200: the length of serial wire can't be over 15m

The Baud Rate is 9600: the length of the serial line should be no more than 50 meters.

c、 he serial thread is a through line which directly connects the control card and the computer

Connection method of through line:

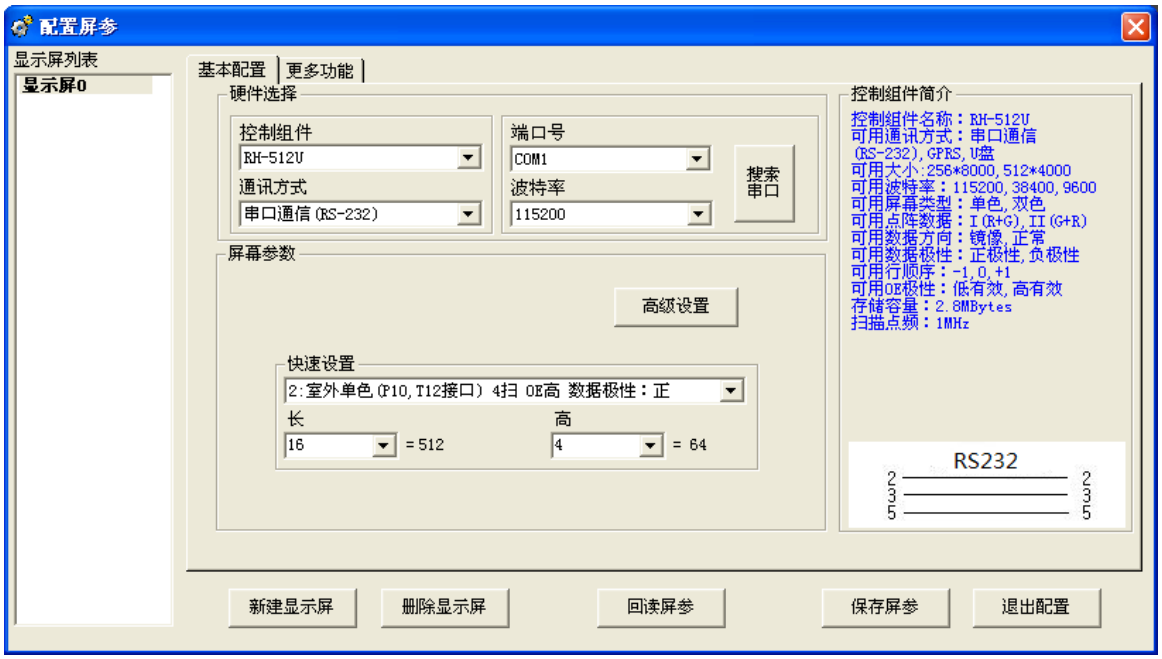
Steps of setting the serial communication:

Step one: the connection of the computer and the control card

After connecting the power supply and flat cable of the control card with the display screen, one more straight serial line is required to be connected to the computer. If the computer's own serial port is in normal situation, it can be connected with it directly. Otherwise, a USB serial port line is required. If using USB, the USB drive needs to be installed, which can be downloaded from the www.rhxled.com "Data download".

Step two: Setting screen parameter

One difference from the USB flash disk setting is to transform the communication mode into serial communication (RS-232) and choose the relevant port number which subject to the one searched by the software automatically. Default of baud rate is 9600, which can be selected as 115200 and 38400. As shown in the figure below.



Step three: Edit programs

First add the programs, and then add the corresponding subtitles, text, or time information etc. to edit the relevant program contents. (Please refer to the instruction of the software for specific operations.)

Step four: Sending Program

Click send to send the program directly. The display screen will be restarted after sending the program, and it will display the card model and the version number. Then it will display the program content.

Ⅶ Serial ports Communication

GPRS communication requirements: GPRS communication must use a direct-through line to connect DTU module with 512U control card, and the detailed transmitting methods are shown in the method for using DTU module.

Thank you for using "the RH-512U control card of Zhengzhou Ruihexin". If you have any technical questions with the control card that can't be resolved, please do not hesitate to contact us.

Technical support: 15238080525 18037131927 18037891691 18037891692